

# PRODUCT DATA SHEET



## SOLDEREL DM 0522 - DM 0523 DMH 0524 - DMH 0525 - DMH 0526

### Rosin Based Solderpaste

#### Benefits

**EXCELLENT TACK**

**LARGE PROCESS WINDOW**

**VERY GOOD CLEANABILITY**

These solderpastes were developed by PROMOSOL as part of a research contract between **FRANCE TELECOM - ALCATEL INDUSTRIE - PROMOSOL** in order to investigate and control the problem of solderballing during the assembly.

#### FEATURES

- ◆ Very good solderability
- ◆ No solderballing
- ◆ Large process window
- ◆ Tack over 24 HRS
- ◆ Good cleanability
  - PROMOSOL 141b MS
  - 3 M<sup>®</sup> HFE 7100 EL 20A Co-solvent
  - SHELLSOL<sup>®</sup> TOPKLEAN EC 20
  - SHELLSOL<sup>®</sup> TOPKLEAN EC 16
  - PROMOCLEAN DISPER 20
  - PROMOCLEAN DISPER 80
  - PROMOCLEAN TP 60
  - PROMOCLEAN TP 6

<sup>®</sup> Registered mark 3M

<sup>®</sup> Registered mark SHELL CHEMICAL EUROPE

SPECIFICATIONS according to C 90550					
ECOREL	522	523	524	525	526
Alloy					
Sn62 Pb Ag2	v		v		v
Sn63 Pb		v		v	
Powder size distribution					
25-45 microns			v	v	v
45-75 microns	v	v			
Melting point (°C)	178	183	178	183	178
Powder	spherical				
Metal content (%)	90				
Residue after reflow soldering (%)	70				
Acid index on organic part (mg/g/KOH)	105				
Halogen content	0,4 %				
Viscosity (Pa.s at 20°C) * Brookfield RVT, TF at 5 rpm	700	700	800	800	550
FUNCTIONAL TESTS				NORM	
Flux classification	FC	C 90550			
	L 1	ANSI/J-STD-004			
	F-SW 26	DIN 8511			
	112	ISO 9454			
Solderballing test	Class 1	C 90550			
Copper mirror	pass	ANSI/J-STD-004			
Chromate paper	pass	ANSI/J-STD-004			
Copper corrosion	pass	ANSI/J-STD-004			
S.I.R. OHMS after cleaning		ANSI/J-STD-004			
after 21 days					
85°C - 85 % RH - 50 Volts	> 10 <sup>10</sup>				
20°C - 65 % RH	> 10 <sup>12</sup>				



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## REFLOW THERMAL PROFILE

The opposite figures indicate, according to thermal mass of PCB and mounted components, the minimum and maximum areas, which have to be respected to obtain a good reflow under air without solderball.

By using a nitrogen atmosphere, you can enlarge your process window towards reflow thermal profile. This permits better wetting and coalescence.

A regular preheat temperature rise is preferable to a too long plateau, in order to avoid solderbeading to get a shining joint and a uniform residue distribution.

## SLUMP

SOLDEREL DM 0522 solder pastes range are particularly easy to screen print :

- ♦ down to 0,6 mm pitch for 522 and 523
- ♦ down to 0,3 mm pitch for 524, 525 and 526.

## SOLDERPASTE PREPARATION

Before printing, it is essential to properly mix the solderpaste, either manually with a spatula, or by doing several preliminary prints on the stencil.

## PACKAGING

- ♦ Jars : 250g - 500 g and 1 kg
- ♦ Cartridges : 700 g
- ♦ In Proflow cassette : 850 g

## STORAGE

To ensure the best product performance, the recommended storage temperature range is 5°C to 10°C. A shelf life of 1 year is achieved under these conditions. For cartridges the shelf life is 6 months.

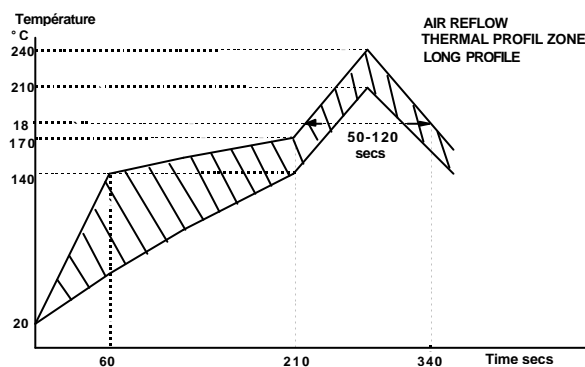
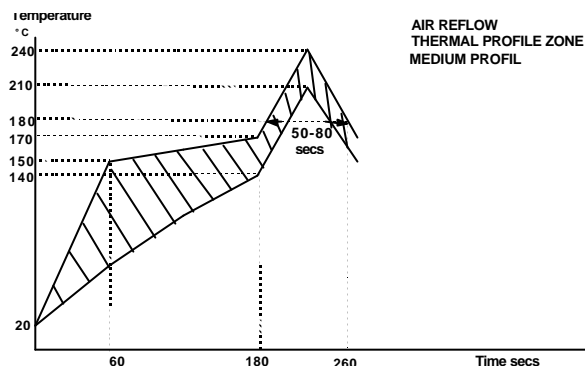
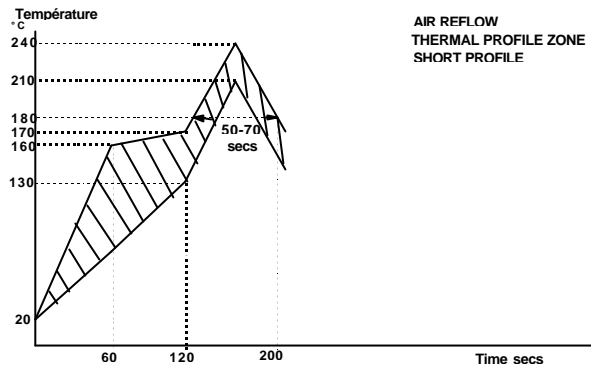
Before use, allow several hours at room temperature for the paste to stabilize. Once a jar has been opened, a refrigerated storage is no longer required.

## HEALTH AND SAFETY

Please refer to MSDS.

*The information given herewith is designed only as a guidance and is not to be considered warranty of PROMOSOL.*

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